

B.Pharm I Year I Semester (R15) Supplementary Examinations May/June 2018

PHARMACEUTICAL ORGANIC CHEMISTRY – I

Time: 3 hours

Max. Marks: 70

PART – A
 (Compulsory Question)

- 1 Answer the following: (10 X 02 = 20 Marks)
- Write short note on Mesomeric effect.
 - Write the reaction of 3, 3-dimethyl-1-butene with: (i) HI. (ii) HBr in the presence of peroxide.
 - Why 1-butyne is more acidic than 2-butyne?
 - How can you say a S_N^2 Reaction proceeds with Stereo chemical Inversion of Configuration?
 - Write a short note on Reformatsky reaction.
 - "Aldehydes are oxidized easily to carboxylic acid but ketones are not" –Comment.
 - Predict the major products obtained on dehydrohalogenation of the following:
 $CH_3-CH_2-CH_2-CH_2Cl$
 - Write short note on Oppenauer oxidation.
 - What is Sashes-Mohr theory? Write its merits.
 - Write the reaction of 1-Chloro and 2-Chloro butanes with KOH. What is the difference between the two reactions?

PART – B
 (Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

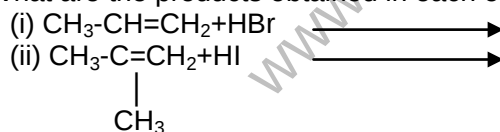
- 2 Write short notes on:
- Hybridization.
 - Impact of a structure on surface tension and solubility.

OR

- 3 Explain the following:
- Inductive effect.
 - Types of organic reactions.

UNIT – II

- 4 What are the products obtained in each of the following reactions give a detailed mechanism:



OR

- 5
- Predict the products formed on mono chlorination of n-butane. Give reasons for the variation in proportion of each product formed.
 - Outline the Bayer's strain theory.

UNIT – III

- 6
- Explain with suitable example and mechanism, why conjugated alkadienes undergo more of 1, 4-addition than 1, 2-addition
 - Write the reaction of 1-butene with: (i) Br_2 in CCl_4 . (ii) HCl. (iii) H_2SO_4

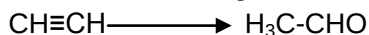
OR

- 7
- Write the products of reaction between HCl and 2, 4-hexadiene. Which is the major product at lower temperature? Which is the major product at higher temperature?
 - Write a note on Anti Markovnikov rule.

Contd. in page 2

UNIT – IV

- 8 (a) How do you effect the following conversion? Account for the formation of the product:



- (b) Discuss the factors that play role in SN^1 and SN^2 .

OR

- 9 (a) What is Walden inversion? Primary alkyl halides undergo SN^2 reaction more easily than tertiary alkyl halides. Why?
(b) Discuss any two important methods of preparation of alkyl halides.

UNIT – V

- 10 (a) Write any two important methods of preparation of ketones.
(b) Write a short note on Aldol condensation.

OR

- 11 (a) Write the product formed in the following reaction:



- (b) How do you distinguish acetophenone and benzophenone?

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